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No. 83-2128.

In the

Supreme Court of the United States.

OCTOBER TERM, 1983.

RAYTHEON COMPANY,
PETITIONER,
v.
ROPER CORPORATION,
RESPONDENT.

Reply to Brief in Opposition to Petition for a Writ of Certiorari

and

Appendix C.

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I. ROPER BOTH MISSTATES THE LAW ON OPERABILITY AND RELIES ON IMPERMISSIBLE FINDINGS OF FACT BY THE COURT OF APPEALS

A. Roper Avoids the Only Problem Asserted by the Patent to Have Been Solved by the Patented Invention

In its brief Roper raises a new issue not raised in the Petition for Certiorari, namely, safety of common cavity ovens (Opp. 1, 4, 5).[1] Roper relates such safety to the sole "general" object of the invention (Opp. 5, 8; App. A7, col. 1, lines 55-59) and attempts to justify the Court of Appeals' reversal of invalidity on the ground that the Roper oven is safe.[2] The District Court,

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1. We cite the Roper brief in opposition as "Opp." together with the page number. Appendix C is bound in at the end of this brief.

2. The irrelevance of "safety" as a consideration is discussed below at pages 7-13.

however, understood that the only problem to be solved was backflow into the waveguide caused by autoignition during self-cleaning (App. B29, B35) as already set forth in the Petition (pp. 18-23).

The Court of Appeals accepted Roper's newfound theory and redefined the invention (App. B83), by reading the "general" object in vacuo (and not in the context of the entire specification) thereby disregarding both the fact that backflow prevention is the only problem the patent purports to solve and the District Court's express findings as to the nature of the invention.

B. The Clock That Ticked And The Oven That Backflowed

For over a century the courts of this country have followed the teachings of Mitchell v. Tilghman, 86 U.S. 287 (1873) that the "utility" which

must be possessed by a patented invention must be that which relates to the advance assertedly made by the invention. This principle is well illustrated in Amphenol Corp. v. General Time Corp., 397 F.2d 431 (7th Cir. 1968), in which the Court of Appeals for the Seventh Circuit found the invention there (an automobile clock assertedly free of audible ticking) invalid for lack of utility on proof that the clock did in fact audibly tick. There was no dispute that the clock otherwise performed all the functions of a clock, e.g., it did keep time. The court held:

> With reference to the aspect of utility, plaintiff's claimed useful improvement over prior art is the substantial reduction of tick noise. The Trial Judge found, as we do, from our study of the record, that the elements of the plaintiff's device which plaintiff asserts are not to be found in the prior art do not contribute to reduction of

> noise, better timekeeping or longer life as asserted during the trial. Such test data as was submitted did not prove that quieter operation was secured by, for example, telescoping of the helical connecting spring over the hubs of the wheel and pinion, or the space between the hubs. The "difference" between the teaching of the prior art does not qualify as invention if that difference lacks utility. It must be the feature which accomplishes the purpose set out in the specification. Imperial Stone Cutters, Inc. v. Schwartz, 8 Cir. 1966, 370 F.2d 425, 429, 152 USPQ 91, 94.

397 F.2d at 438 (emphasis added).

Here, the invention is assertedly an oven free of backflow, thereby permitting use of an open waveguide venting structure in a self-cleaning environment. As found by the Trial Court, the patented invention is not free of backflow and does not solve the purported problem (backflow into the open waveguide). Like the automobile clock, it operates for some purpose, but

not the purpose for which the patent was sought and was granted, and thus does not possess the requisite "utility". It is indeed a "noisy clock".[3]

In finding utility established by the sole "general" object in the instant case, the Court of Appeals sought to free itself of the constraints of Mitchell v. Tilghman by confining Tilghman to cases where the result to be achieved is explicitly set forth in each of the claims.

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3. On page 6 of its brief, Roper states, with no record support, that the District Court held that the Roper oven "lacked all utility". Actually, the court held that the patented invention lacks the utility required by the statute in that it fails to "attain the result claimed by the inventor in his patent." (App.B44 -B46; see also App. B72-B73). Indeed all devices have some sort of utility. Even a bicycle that is incorrectly alleged to be a perpetual motion machine is useable as a bicycle.

This not only trivializes Tilghman and invites the kind of patent drafting one-upmanship described in our Petition, but also disregards this Court's admonition in United States v. Adams, 383 U.S. 39, 49 (1966), that one must look to the entire patent [including, as here, the express statement of the problem to be solved] to ascertain what the "invention" is.[4] It also rejected the guidance of this Court in Graham v. John Deere Co., 383 U.S. 1, 17 (1966), as to the particular importance of the factual assessment of the prior art in relation to the invention.

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4. Significantly, Adams was totally ignored by Roper in its discussion of applicable law.

C. If the "General" Object is Construed Without Reference to the Remainder of the Patent, It Does Not Relate to a Problem Solved by the Roper Oven.

To the extent that one may interpret a "general" object without reference to the remainder of the patent, that object must show an advance over the prior art. Otherwise the object would be unrelated to any patentable invention and would be mere surplusage.

No advance was shown in the "safety" aspect, since none of the prior art ovens were found to be unsafe. The Trial Court did note that there appeared to be a minor problem with steam in prior ovens following microwave cooking; this, however, was based on a warning in GE and Litton oven manuals. (App. B10). The court was unaware that this same warning

appears in Roper's own manual.[5] Thus, the Roper oven is neither more safe nor less safe than the prior ovens in this regard.

Moreover, the Court of Appeals, on its own, without referring to any evidence and without the required deference to the Trial Court's findings

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5. The District Court was unaware of Roper's warnings to its own customers. A copy of the manual furnished by Roper to purchasers of its ovens through Sears Roebuck, and provided to Raytheon during discovery, evidently had a page containing various warnings removed from it prior to production. The absence of that page was undetectable, since Roper had imprinted consecutive Bates Stamp numbers on the preceding and following pages. Raytheon relied on that manual in preparing its case for trial and only recently discovered the warning while reviewing another manual produced by Roper as representative of those furnished to purchasers of the "Roper" brand ovens. We have included at App. C18 excerpts from the page that contains that warning, along with others.

of fact, made its own findings as to the "general" object, including the terms "useable in all three modes," "safe" and "violent explosion" therein. In particular, it found as fact that the oven was "useable in all three modes of operation", as it interpreted that phrase, despite the fact that the District Court found that Roper's invention was not useable to prevent backflow in the self-cleaning mode.6 Thus, it ignored the fact findings of the Trial Court, and substituted its own findings, all in contravention of Rule 52(a), Fed. R. Civ. P.

Additionally, the Court of Appeals implicitly found that "violent

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6. According to the Roper patent, an oven that exhibits backflow is not "useable". (App. A7, col. 1, lines 6-25).

explosions" means dangerous explosions and expressly found that the Roper oven is free from such explosions. (App. B88-B89, B91-B92). The inventor himself refuted this finding in testifying in response to questions from the District Court that violent explosions are to be expected (App. C13) and that they do not present a safety problem (App. C14-C15).[7]

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7. Lest the Court be misled by Roper's discussion of "violent explosions" (Opp. 4), we note: (a) even during normal operation of the Roper oven, pressures of 10 pounds per square inch are not uncommon during autoignition (App. C4-C5); (b) this produces a force of over 3,000 pounds on an oven door, obviously much more than enough to blow open the door; and (c) the door is latched during self-cleaning to prevent this from happening. (App. C11, C17). Moreover, the only reference in the record to "buckling" of the oven floor, relates to downward deflection of the oven floor in response to such pressures (App. C17), as was shown to occur in the Roper oven.

To the extent that the Roper oven limits the severity of explosions, it does so by limiting air flow. However, Roper admitted to copying this technique from the prior art (App. C6-C8), including Roper's own prior self-cleaning oven (App. C8). The District Court explicitly found that this was an old technique (App. B12) and this finding was ignored by the Court of Appeals to the extent that that court found the "general" object to relate to an advance over the prior art. This exemplifies the mischief that results from an appellate court's intervention into the fact-

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7. (Continued) As to "fires" in the ovens during self-cleaning, we note that Roper refers only to a "finding" by the Court of Appeals (App. B64). And, there was no evidence that such "fires" present safety problems in an oven made to withstand a self-cleaning temperature of 900°F.(App. A9, col.1, lines 12-15; C15).

finding function of the trial court.[8]

The Court of Appeals' approach invites sharp patent practice, e.g. the posing of bogus objects in order to rescue patents that are otherwise invalid for failing to deliver on their promises. Thus, a patent on an improved automobile engine might make wild, unsupportable claims to improved performance, but avoid invalidity by including as one of its objects the ability to run on gasoline, even though every engine already on the market meets this criterion.

This Court should instruct the Court of Appeals that it may not uphold the operability of a patent under

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8. Indeed, the Court of Appeals ignored unstated, but implicit, findings which the District Court made in reaching the conclusion that the patented invention relates only to backflow prevention.

35 U.S.C. § 101 and § 112 merely because it meets an object set forth in the patent unless that object has been found as a matter of fact to relate to a patentable distinction over the prior art.

II. ROPER MISREADS THE LAW RELATING TO ESTOPPEL

In the Petition (pp. 25-32) we have treated the law relating to the utility issue in this case. We stand on our analysis of the prior decisions there cited. We shall, however, reply to Roper's citation of other cases in support of its estoppel position. (Opp. 10).

A. Roper's Arguments To The Contrary, The Cases Cited by Roper Do Not Create a Doctrine of Infringer Estoppel to Deny Utility

None of the cases cited by Roper would require the imposition of

estoppel against Raytheon in the instant case. Lehnbeuter v. Holthaus, 105 U.S. 94 (1881), was discussed in the Petition (p. 42). In none of the other Supreme Court cases cited by Roper (Opp. 10-11) did this Court refuse to consider evidence of inoperability because the defendant had been held to infringe.

This is true also of the lower court decisions cited by Roper (Opp. 11). In E.I. duPont de Nemours & Co. v. Berkley & Co., Inc., 620 F.2d 1247 (8th Cir. 1980), the court did in fact weigh the facts relative to utility (620 F.2d at 1258-60), although it found, inter alia, that the defendant was taking advantage of the very feature which it had alleged to lack utility. Here, in contrast, Raytheon's oven lacks the very same utility (backflow prevention) which it has always asserted to be absent from

the patented device as well. Additionally, in both Tapco Products Co. v. Van Mark Products Co., 446 F.2d 420 (6th Cir. 1971), and Miller v. Daybrook-Ottawa Corp., 291 F. Supp. 896 (N.D. Ohio 1968), the courts actually weighed the evidence of non-utility and found it insufficient.

B. Actually, The Prior Decisions Negate Any Estoppel To Deny Operability

The cases on point in fact support Raytheon's position, not Roper's. (See Pet. at 42-47.) In Amphenol Corp. v. General Time Corp., supra at 3, the patent would have been infringed if valid (397 F.2d at 433,39) but was invalidated for inoperability. See also H.C. Baxter & Bro. v. Great Atlantic & Pacific Tea Company, 236 F. Supp. 601 (D. Me. 1964), aff'd on other grounds 352 F.2d 87 (1st

Cir. 1965). Consequently, Roper's asserted estoppel is hardly a "uniformly followed" rule; indeed, although it is sometimes paid lip service, it is rarely, if ever, applied.

III. THE WEAKNESS OF ROPER'S POSITION IS UNDERSCORED BY ITS NUMEROUS MISSTATEMENTS OF THE RECORD

We respond here to several distortions in the Roper Brief, lest this Court believe that we acquiesce in them.

On page 5 of its Opposition, Roper asserts, entirely contrary to fact, that Raytheon has never denied that the Roper oven (1) ventilates properly in all three modes, (2) exhibits no waveguide fouling and (3) is free of violent explosions. Actually, Raytheon has always asserted that the Roper oven fails to suppress backflow. This is the same as saying that it fails to ventilate properly and

to prevent waveguide fouling (supra at p. 17). Raytheon has certainly alleged that the Roper oven is subject to waveguide fouling and, indeed, introduced testimony to that effect. (App. B33, B34). The District Court found that the fouling is not "discernible or significant" (App. B35, B36) simply because of the infrequent occurrence of self-cleaning, but not because of anything done by Roper to prevent or effectively resist the backflow which creates fouling. (App. B34).

Contrary to Roper's assertion on page 6 of its Brief, the Raytheon project was not "floundering" because of any steam problem. As the District Court found, the engineers working on the oven did not believe that steam was a real problem (App. B14-B15). Even Mr. Torrey, the Roper inventor, was unconcerned about

steaming (App. C19). And General Electric maintained its prior art ventilation system through three successive models, even after the appearance of the Roper oven (C9).

Again on page 6, Roper quotes the District Court as stating that the Raytheon tests on the Roper and Raytheon ovens were "not typical of normal use", but fails to inform this Court of the remainder of the trial court's finding, namely, that the tests "were all within the capabilities of the oven and, therefore, were a fair test for the presence of backflow and waveguide fouling." (App. B32).

Contrary to the assertions on pages 5 and 10 of Roper's brief, Raytheon has never denied that the Roper oven is useable for some purposes. Raytheon does, however, deny that the patented

invention has utility for the purpose for which the patent was granted (35 U.S.C. § 101) and that the Roper patent teaches how to make an oven providing the advantages ascribed to the invention (35 U.S.C. § 112).

On page 14 of its Brief, Roper asserts that Raytheon asserted one theory of claim construction to the District Court and a second one to the Court of Appeals. This is entirely untrue. Indeed, Roper's "record support" for this distortion is the opinion of the District Court (App. B29) relating to the claims in question, which opinion nowhere refers to a position taken by Raytheon.

Further along the same page Roper asserts, again falsely, that Raytheon did not assert before the Court of Appeals that claims 2 and 5 require the suppression of autoignition. In

refutation, we refer this Court to App. C2-C3.

CONCLUSION

Roper has utterly failed in its multi-faceted attempt to support the decision of the Court of Appeals. The fact remains that the decision below is mischievous and will, if not reversed, promote deception on the Patent and Trademark Office, deprive litigants of the right to a meaningful trial, and result in undesirable and far-reaching changes in both the Patent Law and in the conduct of patent prosecution and litigation.

This Court, therefore, ought to issue the Writ of Certiorari requested by Petitioner.

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Appendix C

APPENDIX

VOLUME C

Excerpt From Page 43 of Raytheon's Main Brief Before the Court of Appeals.....C2

Deposition Transcript of Sumner H. Torrey (Selected Parts).....C4

Stenographic Transcript of Trial (Selected Parts).....C6

Excerpts From Second Page of Roper User's Manual Titled: "Use and Care of Your MICROWAVE COMBINATION RANGE".....C18

Torrey Memorandum, "Common Cavity Cooker Summary".....C19

EXCERPT FROM PAGE 43 OF RAYTHEON'S MAIN BRIEF BEFORE THE COURT OF APPEALS:

B. Raytheon's Oven Does Not Employ Air Flow Below the Level Which Is Capable of Producing Explosive Reactions With The Products of Thermal Decomposition.

Roper's claims 1, 2 and 5 expressly require air flow which prevents the occurrence of autoignitions. Such autoignitions are or bring about the "explosive reactions" which Roper claims to have prevented. (R.A. 742-43). Claims 3 and 4, when construed in light of the specification as they must be, United States v. Adams, 383 U.S. 39, 49, 148 U.S.P.Q. 479, 482 (1966), must also be read to imply such limitations, as infringement requires the use of the

essence of the disclosed invention. Eastern Electric v. Seeburg Corp., 164 U.S.P.Q. 97, 104-05 (S.D.N.Y. 1969), citing Westinghouse v. Boyden Power Brake Co., 170 U.S. 537, 568-69 (1898). Claims "cannot be given a construction broader than the teachings of the patent as shown by the drawings and specification." Marvin Glass & Assoc. v. Sears Roebuck and Co., 448 F.2d 60, 171 U.S.P.Q. 263, 265 (5th Cir. 1971).

Manifestly, autoignitions do occur in Raytheon's oven, as shown by the tests discussed in the decision of the court below, and elsewhere in this brief. Consequently, Raytheon does not infringe.

DEPOSITION TRANSCRIPT OF SUMNER H. TORREY
Exhibit 264
(Page 99, line 22 to page 100, line 23)

Q. I'm going to refer you now to the 520 patent, that is, Exhibit 4. Would you please turn to Column 11, and beginning on Line 15 there is a reference to a slightly positive pressure this caused, creating backup of heated air.

A. I see it.

Q. Now, is that the same as the term "auto ignition pressures" that is used on Line 44?

A. (Examining document) I believe it would have to be. There is nothing else that creates positive pressure.

Q. When you refer to auto igniton pressures, what range of

pressures are encountered during the phenomenon of auto ignition?

A. Auto ignition? As I attempted to indicate this morning, that is extremely difficult to measure, but it can be done theoretically. It is on the order of 50 to 70 percent above atmospheric pressure.

Q. Well, if atmospheric pressure is 15 pounds per square inch, approximately, then the auto ignition pressures would be around 7 1/2 to 10 or 11 pounds; is that correct?

A. Yes.

Q. That is a fairly substantial pressure inside of an oven, isn't it?

A. It is.

TRIAL TRANSCRIPT
WITNESS: TORREY
(Vol. 5, page 51,
line 9 to
page 52, line 25)

Q. Going to Column 6, Line 8:

"During thermal cooking, when the blower is turned off, the fact that the openings 85, 87 and 88 in the housing 51 are in a 'low' position, below the bottom of the cavity, the fact that the waveguide 52 feeds air inwardly at the bottom of the cavity, and the fact that the vent 162 is in a 'high' position at the top of the cavity, provides sufficient convection, on the order of 0.5 to 2.0 CFM., depending

upon temperature, for both baking and self-cleaning operations."

Now, that was the convected air flow rate in the prior MXV ovens, was it not?

A. It fell within that range, I believe. I'm not absolutely sure of that.

Q. And directing your attention to Column 14, Claim 7, Line 39 calling for: "...to reduce the flow of convected air under baking and self-cleaning conditions to within the range of 0.5 to 2 C.F.M."?

A. Is this Column 7?

Q. Column 14, Line 39.

A. Okay -- Line 39?

Q. Line 39.

A. Yes.

Q. The convected air flow rate.

A. And you are reading really Claim 7, right?

Q. That's correct.

A. The question is?

Q. That's the same convected air flow rate that's referred to at Column 6 beginning at Lines 8 and specifically appearing at Line 14 of Column 6.

A. Yes.

Q. And that's within the range of the air flow rate that existed in the prior MXV oven?

A. That range, yes.

Q. And it was chosen to match the air flow rate of the prior MXV oven?

A. Yes.

TRIAL TRANSCRIPT
WITNESS: KIRSCHKE
(Vol. 6, page 34,
line 18 to
page 35, line 1)

Q. What was the name of the General Electric common cavity range?

A. When we first introduced the common cavity range, it was known as the Versatronic.

In 1973, a second major revision was introduced and it was identified as the Super Stove.

After I left General Electric, in 1980, they brought out another version which is now known as the Time Maker.

TRIAL TRANSCRIPT
WITNESS: TORREY
(Vol. 2, page 67,
line 13 to
page 69, line 2)

Q. Now, your patent talks about, again, in the claims, "limiting the amount of air into the waveguide to prevent explosive reaction."

You've heard that language?

A. Yes, I have.

Q. What's that talking about?

A. That, basically, describes the hazards that relate to extreme soils and UL tests and is essentially covered by prior art in the Lewis patent.

Q. And is that the purpose of having a smaller gap in the bottom of the door in a normal self-cleaning oven?

A. The purpose for having the smaller gap, I believe, in the bottom of

an oven door or GE technique by Lewis which is entering near the oven bottom, is to limit the amount of air, so that you don't have extreme reactions during extreme load tests. This can be combustion and a small explosion.

My experience has taught me it has sufficient force to lay that door down flat if the door is not latched.

It is really an explosion where the force sends the air out in all directions within the oven. The oven attempts to contain this, and you try to get that through the smoke eliminator, but in the case of UL loads, they are very severe, and it is not their intended purpose for testing the oven that way. It's to look for hazards.

Q. Let's go back to your invention. You are now getting back into talk of explosive reactions.

Earlier you talked about autoignition and fouling. Let me ask you: Does your patent teach that it eliminates what is known as autoignition?

A. No, it does not.

Q. Does autoignition occur even after you put in your patented invention into the oven?

A. It can occur; it can occur under normal self-cleaning methods occasionally, soil loads occasionally. It can occur under severe soil loads. I know it occurs under severe and extreme soil loads.

TRIAL TRANSCRIPT
WITNESS: TORREY
(Vol. 2, page 87, line 4 to
page 88, line 14

THE COURT: Has there ever been a violent explosion from air forced into a self-cleaning mode? Has there ever been?

THE WITNESS: Yes, your Honor. It's primarily a function of oven loads. The claim language we're talking about is distinguishing between what I'll call normal autoignition in the home and a more severe load case relative to, say, a heavier load that could cause a more violent reaction.

On the other hand, an extreme load such as pans being left in the oven inadvertently or the like, that would tend to make a much more severe reaction.

THE COURT: What I'm trying to say, reaction I can see. If it's a dirty oven, I can see that it might even flame or burn or smoke, but now you're talking about an explosion.

Is there ever a time when this air coming through there can cause an explosion?

THE WITNESS: Perhaps I better just define what I mean by "explosion" and what I mean the patent means.

It's a rapid expansion of the gases in the oven. Under extreme load conditions, if the oven didn't have a latch, it could just open the oven door and lay it down flat which would let oxygen in and make things worse.

So I use the word, the patent uses the word "violent explosion" from the standpoint of rapidly expanding gas which develops pressure.

In all of these cases, it prevents the fouling of the waveguide.

THE COURT: We are not talking about a life-threatening explosion?

THE WITNESS: Not from the standpoint of the range blowing up, per se.

TRIAL TRANSCRIPT
WITNESS: BOHDAN HURKO
(Vol. 8, page 39, line 10 to page 40, line 5)

Q. How do you detect an autoignition?

A. Well, there is several manifestations of ignition. The first is on the curve of temperature rate, there will be a sudden spike.

Q. You measured the temperature within the oven?

A. Yes.

And a sudden increase and drop. And then, also, as a result of the temperature increase and burning of the products, there will be a sudden increase of the pressure. And this could be observed by two things:

One, the pressure will go in every direction. So you can observe that the oven bottom is flexing.

THE COURT: Say that again.

THE WITNESS: Oven bottom is flexing, it goes into down.

And then if you do not have a good locking system like we had in the initial development, door will be opened, because there is enough pressure to make this door open.

EXCERPTS FROM SECOND PAGE OF ROPER USER'S MANUAL TITLED:

"Use and Care of Your MICROWAVE COMBINATION RANGE"

In accordance with government regulatory requirements, the Rules for Safe Operation listed below have been provided to help you, the user of this cooking appliance, become more familiar with the possible hazards associated with operating an appliance and the proper precautions to avoid such hazards. Therefore, please take the time to carefully read and understand these Rules for Safe Operation.

Rules for Safe Operation

*

*

* Use care when opening oven door to let hot air or steam escape before removing or replacing food.

*

*

TORREY MEMORANDUM, "COMMON CAVITY COOKER SUMMARY", JAN. 1, 1975, TRIAL EXHIBIT 111 AT 1427

"Due to oven size, tests show that pure microwave steaming is not a concern, therefore no special air flow is necessary. Condensation on a door window will occur, and this might be reduced by forced flow." (emphasis added)